

RECEIVED
CENTRAL FAX CENTER

AUG 14 2006

Application No. 10/790,338

AMENDMENTS TO THE CLAIMS

A detailed listing of all claims that are, or were, in the present application, irrespective of whether the claim(s) remains under examination in the application are presented below. The claims are presented in ascending order and each includes one status identifier. Those claims not cancelled or withdrawn but amended by the current amendment utilize the following notations for amendment: 1. deleted matter is shown by strikethrough for six or more characters and double brackets for five or less characters; and 2. added matter is shown by underlining.

1.-53. (Cancelled)

54. (Currently Amended) A coating for a medical device for delivery of a therapeutic agent, the coating comprising a layer with a thickness between about 0.1 μm and about 1000 μm and having a composition associated with at least a portion of the device, wherein the composition comprises the therapeutic agent associated with an uncrosslinked copolymer that has a weight averaged molecular weight of at least about 2500, wherein the copolymer comprises a first monomer unit and a second monomer unit, wherein the second monomer unit has a glass transition temperature that is at least about 30 degrees Centigrade higher than the glass transition temperature of the first monomer unit, with a glass transition temperature of a monomer unit being defined as a glass transition temperature of a homopolymer of that monomer unit.

55. (Original) The coating of claim 54 wherein at least a portion of the first monomer units are organized into a plurality of blocks consisting essentially of repeats of the first monomer unit, and at least a portion of the second monomer units are organized into a plurality of blocks consisting essentially of repeats of the second monomer unit.

Application No. 10/790,338

56. (Original) The coating of claim 55 wherein the copolymer further comprises regions of random copolymer bonding.
57. (Original) The coating of claim 54 wherein the copolymer comprises a third monomer unit and comprises at least three blocks, wherein each block consists essentially of repeats of one type of monomer unit.
58. (Original) The coating of claim 54 wherein the copolymer comprises acrylate blocks and methacrylate blocks.
59. (Original) The coating of claim 54 wherein the therapeutic agent associates with blocks within the copolymer.
60. (Original) The coating of claim 54, wherein the second monomer unit has a glass transition temperature that is at least about 50 degrees Centigrade higher than the glass transition temperature of the first monomer unit.
61. (Original) The coating of claim 54, wherein the second monomer unit has a glass transition temperature that is at least about 70 degrees Centigrade higher than the glass transition temperature of the first monomer unit.
62. (Original) The coating of claim 54 wherein the first monomer unit comprises an acrylate and the second monomer unit comprises a methacrylate.

Application No. 10/790,338

63. (Original) The coating of claim 54 wherein the first monomer unit and the second monomer unit selected from a member of the group consisting of acrylic acid, acrylonitrile, allyamine, acrylates, methacrylates, methylmethacrylate, alkyl acrylates, alkyl methacrylate, butadiene, carbomethylsilane, (carbonate) urethane, acrylates of polydimethyl siloxanes, methacrylates of polydimethyl siloxanes, ethylene, ethylene glycol, propylene glycol, (ether) urethane, urethane, vinyl chloride, vinyl alcohol, maleic anhydride, cellulose nitrate, carboxy methyl cellulose, dextran, dextran sulphate, propylene, esters, carbonates, ethers, butenes, malic acid, fluoropolymer monomeric units, unsaturated polymer monomeric units, isoprene, melamine, sulphone, ureas, biological polymer monomeric units, protein, gelatin, collagen, elastin, butyl methacrylate, hydroxyethyl methacrylate, methacrylate acid, polyethylene glycol dimethacrylate, polypropylene glycol diglycidal ether, polyethylene glycol diglycidyl ether, isocyanatoethyl methacrylate, N-acryloxysuccinimide, glycidyl methacrylate, hexamethylene diisocyanate, acrolein, crotonaldehyde, glycerol monomethacrylate, heparin methacrylate, methacryloyl ethyl phosphorylcholine, polymethacrylatea, polyacrylate, polyester, polyether, polyethylene glycol, butyl acrylate, polyethylene glycol monomethacrylate, isobutyl methacrylate, cyclohexyl methacrylate, ethyl acrylate, 2-hydroxyethyl acrylate, 2-ethylhexyl methacrylate, ethyl methacrylate, methyl acrylate, hexadecyl methacrylate, octadecyl methacrylate, styrene, methyl styrene, vinyl stearate, vinyl toluene, and tert-butyl acrylate.

64. (Original) The coating of claim 54 wherein the copolymer further comprises a third monomer unit, wherein the third monomer unit forms a homopolymer with a glass transition temperature that is at least about 30 degrees Centigrade higher than the glass transition temperature of a homopolymer formed by the first monomer unit.

Application No. 10/790,338

65. (Original) The coating of claim 64 wherein the first monomer unit comprises an acrylate, the second monomer unit comprises a methacrylate, and the third monomer unit comprises a methacrylate.

66. (Original) The coating of claim 64 wherein the copolymer comprises a homopolymer of the first monomer unit covalently joined to a homopolymer of the second monomer unit.

67. (Original) The coating of claim 66 wherein a first polymer comprises a first monomer unit and a second polymer comprises at least one member of the group consisting of the first monomer unit, the second monomer unit, and both the first monomer unit and the second monomer unit.

68. (Original) The coating of claim 54 wherein the copolymer comprises at least two methacrylate monomer units.

69. (Original) The coating of claim 54 wherein the copolymer comprises a member of the group consisting of poly(hydroxyethyl methacrylate-co-butylacrylate-co-butylmethacrylate), poly(hydroxyethyl methacrylate-co-lauryl methacrylate), poly(polyethylene glycol monomethacrylate-co-butyl acrylate-co-butyl methacrylate), poly(heparin methacrylate-co-hydroxyethylmethacrylate-co-butyl acrylate-co-butyl methacrylate), poly(glycerol monomethacrylate-co-butyl acrylate-co-butyl methacrylate), poly(amino methacrylate hydrochloride-co-butyl acrylate-co-butyl methacrylate), poly(isocyanatoethyl methacrylate-co-butyl acrylate-co-butyl methacrylate) and poly(methoxy(polyethylene glycol) monomethacrylate-co-lauryl methacrylate-co-butyl methacrylate-co-ethylene glycol dimethacrylate).

Application No. 10/790,338

70. (Original) The coating of claim 54 wherein the monomer units are polymerizable to form the copolymer after the monomer units have been associated with the medical device.
71. (Original) The coating of claim 54 wherein the medical device is a stent and the therapeutic agent is paclitaxel.
72. (Original) The coating of claim 54 wherein the copolymer is prepared and is subsequently associated with the therapeutic agent.
73. (Original) The coating of claim 54 wherein the copolymer is prepared from the monomer units from a melt of the monomers.
74. (Original) The coating of claim 54 wherein the first monomer unit and the second monomer unit are chosen so that the first monomer unit reacts to form a plurality of blocks consisting essentially of repeats of the first monomer unit and the second monomer unit reacts to form a plurality of blocks consisting essentially of repeats of the second monomer unit.
75. (Original) The coating of claim 54 further comprising a second layer that contacts at least a portion of the first layer, wherein the second layer and the first layer have a different composition.
76. (Original) The coating of claim 75 wherein the first layer is at least partially disposed between the device and the second layer.

Application No. 10/790,338

77. (Original) The coating of claim 75 wherein the second layer is at least partially disposed between the device and the first layer.

78. (Original) The coating of claim 75 wherein the second layer comprises a polymer that is covalently crosslinked to the polymer of the first layer.

79. (Original) The coating of claim 75 wherein the copolymer comprises reactive functional groups that are involved in forming covalent crosslinks with the second layer, and wherein the reactive functional groups are chosen from the group consisting of hydroxyl, amine, carboxylic, aldehyde, ketone, thiol, allyl, acrylate, methacrylate, isocyanate, epoxide, azides, aziridines, acetals, ketals, alkynes, acyl halides, alkyl halides, hydroxy aldehydes and ketones, allenes, amides, bisamides, amino acids and esters, amino carbonyl compounds, mercaptans, amino mercaptans, anhydrides, azines, azo compounds, azoxy compounds, boranes, carbamates, carbodimides, carbonates, diazo compounds, isothionates, hydroxamic acid, hydroxy acids, hydroxy amines and amides, hydroxylamine, imines, lactams, nitriles, sulphonamides, sulphones, sulphonic acids, thiocyanates, and combinations thereof.

80. (Original) The coating of claim 75 wherein the second layer comprises a heparin macromer that comprises a second reactive functional group that is involved in forming the crosslinks with the first layer.

81. (Original) The coating of claim 75 wherein the polymer of the second layer comprises monomer units that comprise a heparin macromer.

Application No. 10/790,338

82. (Currently Amended) The coating of claim [[75]] 78 wherein the polymer of the second layer comprises a second functional group that forms at least one of the covalent crosslinks in response to exposure to light.
83. (Original) The coating of claim 75 wherein the second functional group comprises azide.
84. (Original) The coating of claim 75 wherein the first layer comprises the therapeutic agent and the second layer does not comprise the therapeutic agent.
85. (Original) The coating of claim 75 wherein the second layer reduces the rate of release of the therapeutic agent from the first layer.
86. (Original) The coating of claim 75 wherein the second layer is in contact with the medical device and comprises a polymer having at least one reactable monomer.
87. (Original) The coating of claim 86 wherein the at least one reactable monomer is a member of the group consisting of acrylates and methylmethacrylates.
88. (Original) The coating of claim 87 wherein the polymer in the second layer is a second copolymer that comprises monomer units of at least one member of the group consisting of vinyl chloride, vinyl acetate, and co-vinyl alcohol.
89. (Original) The coating of claim 87 wherein the polymer in the second layer comprises a hydrophilic polymer.

Application No. 10/790,338

90. (Original) The coating of claim 89 wherein the polymer in the second layer comprises polyvinylpyrrolidone.
91. (Original) The coating of claim 75 further comprising a third layer having a composition different from the first layer and the second layer.
92. (Original) The coating of claim 54 wherein the therapeutic agent is a member of the group consisting of, vasoactive agents, neuroactive agents, hormones, growth factors, cytokines, anaesthetics, steroids, anticoagulants, anti-inflammatories, immunomodulating agents, cytotoxic agents, antibiotics, antivirals, antibodies, anti-thrombogenic agents such as heparin, heparin derivatives, urokinase, and PPACK (dextrophenylalanine proline arginine chloromethylketone); anti-proliferative agents such as enoxaprin, angiopentin, antibodies capable of blocking smooth muscle cell proliferation, hirudin, acetylsalicylic acid; anti-inflammatory agents, dexamethasone, prednisolone, corticosterone, budesonide, estrogen, sulfasalazine, and mesalamine, 5-fluorouracil, cisplatin, vinblastine, vincristine, epothilones, endostatin, angiostatin and thymidine kinase inhibitors; anesthetic agents such as lidocaine, bupivacaine, and ropivacaine; anti-coagulants, D-Phe-Pro-Arg chloromethyl ketone, an RGD peptide-containing compound, heparin, antithrombin compounds, platelet receptor antagonists, anti-thrombin, anti-platelet receptor antibodies, aspirin, prostaglandin inhibitors, platelet inhibitors, antiplatelet peptides, vascular cell growth promoters, growth factor inhibitors, growth factor receptor antagonists, transcriptional activators, translational promoters, vascular cell growth inhibitors, growth factor receptor antagonists, transcriptional repressors, translational repressors, replication inhibitors, inhibitory antibodies, antibodies directed against growth factors, cholesterol-lowering agents, vasodilating agents, agents which interfere with endogenous vasoactive mechanisms, a radiopharmaceutical, an analgesic drug, an anesthetic agent, an anorectic agent, an anti-anemia

Application No. 10/790,338

agent, an anti-asthma agent, an anti-diabetic agent, an antihistamine, an anti-inflammatory drug, an antibiotic drug, an antimuscarinic drug, an anti-neoplastic drug, an antiviral drug, a cardiovascular drug, a central nervous system stimulator, a central nervous system depressant, an anti-depressant, an anti-epileptic, an anxyolytic agent, a hypnotic agent, a sedative, an anti-psychotic drug, a beta blocker, a hemostatic agent, a hormone, a vasodilator, a vasoconstrictor, and a vitamin.

93. (Original) The coating of claim 54 wherein the therapeutic agent comprises paclitaxel.

94. (Original) The coating of claim 54 wherein the device is selected from the group consisting of an implantable device, a device used topically on a patient, a device that contacts a living tissue, a catheter; a guide-wires, an embolizing coil; a vascular graft, a heart valve, an implantable cardiovascular defibrillator, a pacemaker, a surgical patch, a wound closure, a microsphere, a biosensors, an implantable sensor, an ex-vivo sensor, an ocular implant, a contact lens; and a tissue engineering scaffold.

95. (Original) The coating of claim 54 wherein the device comprises a stent.

96. (Original) The coating of claim 54 wherein the glass transition temperature of the first monomer unit is below about 37 degrees Centigrade and the glass transition temperature of the second monomer unit is above about 37 degrees Centigrade.

97. (Currently Amended) The coating of claim 54 wherein the copolymer is made from a combination of monomer units, and wherein the coating copolymer has a glass transition

Application No. 10/790,338

temperature in a range of about 0 to about 60 degrees Celsius as ~~calculated~~ measured using differential scanning calorimetry.

98. (Currently Amended) The coating of claim 54 wherein the copolymer is made from a combination of monomer units, and wherein the coating copolymer has a glass transition temperature in a range of about 15 to about 40 degrees Celsius as ~~calculated~~ measured using differential scanning calorimetry.

99. (Currently Amended) The coating of claim 54 wherein the copolymer is made from a combination of monomer units, and wherein the coating copolymer has a glass transition temperature in a range of about -70 to about 70 degrees Celsius as ~~calculated~~ measured using differential scanning calorimetry.

100. (Original) The coating of claim 99 wherein the combination comprises at least one monomer unit selected from the group consisting of butyl acrylate, butyl methacrylate, and hydroxyethylmethacrylate.

101. (Original) The coating of claim 99 wherein the first monomer unit and the second monomer unit are selected from a member of the group consisting of acrylic acid, acrylonitrile, allyamine, acrylates, methacrylates, methylmethacrylate, alkyl acrylates, alkyl methacrylate, butadiene, carbomethylsilane, (carbonate) urethane, acrylates of polydimethyl siloxanes / methacrylates of polydimethyl siloxane ethylene, ethylene glycol, propylene glycol, (ether) urethane, urethane, vinyl chloride, vinyl alcohol, maleic anhydride, cellulose nitrate, carboxy methyl cellulose, dextran, dextran sulphate, propylene, esters, carbonates, ethers, butenes, maleic acid, fluoropolymer monomeric units, unsaturated polymer monomeric units, isoprene,

Application No. 10/790,338

melamine, sulphone, ureas, biological polymer monomeric units, protein, gelatin, collagen, elastin, butyl methacrylate, hydroxyethyl methacrylate, acrylic acid, methacrylate acid, polyethylene glycol dimethacrylate, polypropylene glycol diglycidal ether, polyethylene glycol diglycidyl ether, isocyanatoethyl methacrylate, N-acryloxysuccinimide, glycidyl methacrylate, hexamethylene diisocyanate, acrolein, crotonaldehyde, glycerol monomethacrylate, heparin methacrylate, methacryloyloxyethyl, methacryloyl ethyl phosphorylcholine polyacrylate, polyester, polyether, polyethylene glycol, butyl acrylate, polyethylene glycol monomethacrylate, isobutyl methacrylate, cyclohexyl methacrylate, ethyl acrylate, 2-hydroxyethyl acrylate, 2-ethylhexyl methacrylate, ethyl methacrylate, methyl acrylate, hexadecyl methacrylate, octadecyl methacrylate, styrene, methyl styrene, vinyl stearate, vinyl toluene, and tert-butyl acrylate.

102. (Original) The coating of claim 99 wherein the copolymer further comprises a third monomer unit, wherein the third monomer unit forms a homopolymer with a glass transition temperature that is at least about 30 degrees Centigrade higher than the glass transition temperature of a homopolymer formed by the first monomer unit.

103. (Original) The coating of claim 99 wherein the first monomer unit comprises an acrylate, the second monomer unit comprises a methacrylate, and the third monomer unit comprises a methacrylate.

104. (Original) The coating of claim 99 wherein the copolymer comprises at least two methacrylate monomer units.

105. -150. (Cancelled)

Application No. 10/790,338

151. (Currently Amended) An expandable medical device associated with a material composition for delivery of a therapeutic agent, comprising: ~~a composition associated with at least a portion of every~~ an expandable portion of an expandable stent coated with a ~~wherein the~~ composition comprising [[es]] the therapeutic agent associated with an uncrosslinked copolymer that has a weight averaged molecular weight of at least about 2500, wherein the copolymer comprises a first monomer unit and a second monomer unit, wherein the second monomer unit has a glass transition temperature that is at least about 30 degrees Centigrade higher than the glass transition temperature of the first monomer unit, with a glass transition temperature of a monomer unit being defined as a glass transition temperature of a homopolymer of that monomer unit.

152. (Previously Presented) The device of claim 151 wherein at least a portion of the first monomer units are organized into a plurality of blocks consisting essentially of repeats of the first monomer unit, and at least a portion of the second monomer units are organized into a plurality of blocks consisting essentially of repeats of the second monomer unit.

153. (Previously Presented) The device of claim 152 wherein the copolymer further comprises regions of random copolymer bonding.

154. (Previously Presented) The device of claim 152 wherein the copolymer comprises acrylate blocks and methacrylate blocks.

155. (Previously Presented) The device of claim 151 wherein the copolymer comprises a third monomer unit and comprises at least three blocks, wherein each block consists essentially of repeats of one type of monomer unit.

Application No. 10/790,338

156. (Previously Presented) The device of claim 151 wherein the therapeutic agent associates with blocks within the copolymer.
157. (Previously Presented) The device of claim 151, wherein the second monomer unit has a glass transition temperature that is at least about 70 degrees Centigrade higher than the glass transition temperature of the first monomer unit.
158. (Previously Presented) The device of claim 151 wherein the monomer units are polymerizable to form the copolymer after the monomer units have been associated with the medical device.
159. (Previously Presented) The device of claim 151 wherein the therapeutic agent is paclitaxel.
160. (Previously Presented) The device of claim 151 wherein the copolymer is prepared and is subsequently associated with the therapeutic agent.
161. (Previously Presented) The device of claim 151 wherein the copolymer is prepared from the monomer units from a melt of the monomers.
162. (Previously Presented) The device of claim 151 wherein the first monomer unit and the second monomer unit are chosen so that the first monomer unit reacts to form a plurality of blocks consisting essentially of repeats of the first monomer unit and the second monomer unit reacts to form a plurality of blocks consisting essentially of repeats of the second monomer unit.

Application No. 10/790,338

163. (Previously Presented) The device of claim 151 further comprising a second layer that contacts at least a portion of the first layer, wherein the second layer and the first layer have a different composition.

164. (Previously Presented) The device of claim 163 wherein the second layer comprises a polymer that is covalently crosslinked to the polymer of the first layer.

165. (Previously Presented) The device of claim 163 wherein the polymer of the second layer comprises monomer units that comprise a heparin macromer.

166. (Previously Presented) The device of claim 163 wherein the polymer of the second layer comprises a second functional group that forms at least one of the covalent crosslinks in response to exposure to light.

167. (Currently Amended) The device of claim 151 wherein the copolymer glass transition temperature is between about 26 and about 40 degrees Centigrade.

168. (Previously Presented) The device of claim 151 wherein the composition associated with the stent has a thickness ranging from about 0.1 μm to about 30 μm .

169. (Currently Amended) The device coating of claim 54 wherein the thickness ranges from about 1 μm to about 200 μm .

Application No. 10/790,338

170. (Currently Amended) A coating for a medical device for delivery of a therapeutic agent, the coating comprising a layer having a composition associated with at least a portion of the device, wherein the composition comprises the therapeutic agent associated with a copolymer that has a weight averaged molecular weight of at least about 2500 and a glass transition temperature between ~~about~~ 26 and about 40 degrees Centigrade as ~~calculated~~ measured by differential scanning calorimetry, wherein the copolymer comprises a first monomer unit and a second monomer unit, wherein the second monomer unit has a glass transition temperature that is at least about 30 degrees Centigrade higher than the glass transition temperature of the first monomer unit, with a glass transition temperature of a monomer unit being defined as a glass transition temperature of a homopolymer of that monomer unit, wherein the layer has a glass transition temperature between 26 and about 40 degrees Centigrade as measured by differential scanning calorimetry.

171. (Previously Presented) The coating of claim 170 wherein at least a portion of the first monomer units are organized into a plurality of blocks consisting essentially of repeats of the first monomer unit, and at least a portion of the second monomer units are organized into a plurality of blocks consisting essentially of repeats of the second monomer unit.

172. (Previously Presented) The coating of claim 170 wherein the copolymer further comprises regions of random copolymer bonding.

173. (Previously Presented) The coating of claim 170 wherein the copolymer comprises a third monomer unit and comprises at least three blocks, wherein each block consists essentially of repeats of one type of monomer unit.

Application No. 10/790,338

174. (Previously Presented) The coating of claim 170 wherein the copolymer comprises acrylate blocks and methacrylate blocks.

175. (Previously Presented) The coating of claim 170 wherein the therapeutic agent associates with blocks within the copolymer.

176. (Previously Presented) The coating of claim 170, wherein the second monomer unit has a glass transition temperature that is at least about 70 degrees Centigrade higher than the glass transition temperature of the first monomer unit.

177. (Previously Presented) The coating of claim 170 wherein the monomer units are polymerizable to form the copolymer after the monomer units have been associated with the medical device.

178. (Previously Presented) The coating of claim 170 wherein the medical device is a stent and the therapeutic agent is paclitaxel.

179. (Previously Presented) The coating of claim 170 wherein the copolymer is prepared and is subsequently associated with the therapeutic agent.

180. (Previously Presented) The coating of claim 170 wherein the copolymer is prepared from the monomer units from a melt of the monomers.

181. (Previously Presented) The coating of claim 170 wherein the first monomer unit and the second monomer unit are chosen so that the first monomer unit reacts to form a plurality of

Application No. 10/790,338

blocks consisting essentially of repeats of the first monomer unit and the second monomer unit reacts to form a plurality of blocks consisting essentially of repeats of the second monomer unit.

182. (Previously Presented) The coating of claim 170 further comprising a second layer that contacts at least a portion of the first layer, wherein the second layer and the first layer have a different composition.

183. (Previously Presented) The coating of claim 170 wherein the second layer comprises a polymer that is covalently crosslinked to the polymer of the first layer.

184. (Previously Presented) The coating of claim 170 wherein the polymer of the second layer comprises monomer units that comprise a heparin macromer.

185. (Previously Presented) The coating of claim 170 wherein the polymer of the second layer comprises a second functional group that forms at least one of the covalent crosslinks in response to exposure to light.

186. (Previously Presented) The coating of claim 170 wherein the medical device is a stent, with the coating being applied to every expandable portion of the stent.

187. (Previously Presented) The coating of claim 170 wherein the medical device is a member of the group consisting of an implantable device, a device used topically on a patient, a device that contacts a living tissue, a catheter; a guide-wires, an embolizing coil, an implantable lead, an expandable balloon, a vascular graft, a heart valve, an implantable cardiovascular

Application No. 10/790,338

defibrillator, a pacemaker, a surgical patch, a wound closure, a microsphere, a biosensors, an implantable sensor, an ex-vivo sensor, an ocular implant, a contact lens, and a tissue engineering scaffold.

188. (Previously Presented) The coating of claim 170 having a thickness of between about 0.1 μm and about 1000 μm .

189. (Previously Presented) The coating of claim 170 having a thickness of between about 1 μm and about 200 μm .

190. (Currently Amended) A coating for a medical device for delivery of a therapeutic agent, the coating comprising a layer having a composition associated with at least a portion of the device, wherein the composition comprises the therapeutic agent associated with an uncrosslinked copolymer that has a weight averaged molecular weight of at least about 2500, wherein the copolymer comprises a first monomer unit and a second monomer unit, wherein the second monomer unit has a glass transition temperature that is at least about 30 degrees Centigrade higher than the glass transition temperature of the first monomer unit, with a glass transition temperature of a monomer unit being defined as a glass transition temperature of a homopolymer of that monomer unit, wherein the device is selected from the group consisting of an implantable device, a device used topically on a patient, a device that contacts a living tissue, a catheter; a guide-wires, an embolizing coil, an implantable lead ~~page~~, ~~an expandable stent~~, an expandable balloon, a vascular graft, a heart valve, an implantable cardiovascular defibrillator, a pacemaker, a surgical patch, a wound closure, a microsphere, a biosensors, an implantable sensor, an ex-vivo sensor, an ocular implant, a contact lens, and a tissue engineering scaffold.

Application No. 10/790,338

191. (Previously Presented) The coating of claim 190 wherein at least a portion of the first monomer units are organized into a plurality of blocks consisting essentially of repeats of the first monomer unit, and at least a portion of the second monomer units are organized into a plurality of blocks consisting essentially of repeats of the second monomer unit.

192. (Previously Presented) The coating of claim 191 wherein the copolymer further comprises regions of random copolymer bonding.

193. (Previously Presented) The coating of claim 190 wherein the copolymer comprises a third monomer unit and comprises at least three blocks, wherein each block consists essentially of repeats of one type of monomer unit.

194. (Previously Presented) The coating of claim 190 wherein the copolymer comprises acrylate blocks and methacrylate blocks.

195. (Previously Presented) The coating of claim 190 wherein the therapeutic agent associates with blocks within the copolymer.

196. (Previously Presented) The coating of claim 190, wherein the second monomer unit has a glass transition temperature that is at least about 70 degrees Centigrade higher than the glass transition temperature of the first monomer unit.

197. (Previously Presented) The coating of claim 190 wherein the monomer units are polymerizable to form the copolymer after the monomer units have been associated with the medical device.

Application No. 10/790,338

198. (Cancelled)

199. (Previously Presented) The coating of claim 190 wherein the copolymer is prepared and is subsequently associated with the therapeutic agent.

200. (Previously Presented) The coating of claim 190 wherein the copolymer is prepared from the monomer units from a melt of the monomers.

201. (Previously Presented) The coating of claim 190 wherein the first monomer unit and the second monomer unit are chosen so that the first monomer unit reacts to form a plurality of blocks consisting essentially of repeats of the first monomer unit and the second monomer unit reacts to form a plurality of blocks consisting essentially of repeats of the second monomer unit.

202. (Previously Presented) The coating of claim 190 further comprising a second layer that contacts at least a portion of the first layer, wherein the second layer and the first layer have a different composition.

203. (Previously Presented) The coating of claim 190 wherein the second layer comprises a polymer that is covalently crosslinked to the polymer of the first layer.

204. (Previously Presented) The coating of claim 190 wherein the polymer of the second layer comprises monomer units that comprise a heparin macromer.

Application No. 10/790,338

205. (Previously Presented) The coating of claim 190 wherein the polymer of the second layer comprises a second functional group that forms at least one of the covalent crosslinks in response to exposure to light.

206. (Currently Amended) The coating of claim 190 wherein the copolymer has a glass transition temperature between about 26 and about 40 degrees Centigrade.

207. (Cancelled)

208. (Cancelled)

209. (Previously Presented) The coating of claim 190 having a thickness of between about 0.1 μm and about 1000 μm .

Please add new claims 210-215:

210. (New) The coating of claim 95 wherein the coating is disposed essentially only on the solid portions of the stent.

211. (New) The coating of claim 95 wherein the coating is disposed on both a lumen and exterior of the stent.

212. (New) The coating of claim 151 wherein the coating is disposed essentially only on the solid portions of the stent.

Application No. 10/790,338

213. (New) The coating of claim 151 wherein the coating is disposed on both a lumen and exterior of the stent.

214. (New) The copolymer of claim 167 wherein the copolymer glass transition temperature is about 37°C.

215. (New) The coating of claim 170 wherein the layer has a glass transition temperature is about 37°C.